impacts in children and is currently being evaluated for use in adults in the Czech Republic (CR). The objective of this study was to assess the cost-effectiveness of pneumococcal vaccination strategies in the elderly population. **METHODS:** A first-order Markov decision-analytic model was developed to compare cost-effectiveness of vaccination with PCV13, PPSV23 and no vaccination in the Czech Republic. PPSV23 effectiveness was derived from literature and PCV13 was extrapolated from impact in children adjusting for immunosenescence in older persons. Pneumonia, bacteremia and meningitis hospitalization and cost data were acquired from health authorities and DRG system in CR; outpatient data were based on retrospective patient survey. The model used a lifetime time horizon and 3% discount rate. **RESULTS:** Used according to Czech guidelines, PCV13 vaccination is associated with 0.0002 life-years gained for an additional EUR 1.002 on average (EUR 3,812,478 in total) compared to no vaccination and 0.0004 life-years gained for additional EUR 0.97 on average (EUR 3,704,061 in total) compared to PPSV23. This leads to an ICER of EUR/LYG 4,950 and 2,265 under current reimbursement. If all moderate and high risk people were vaccinated, the ICER would increase to EUR/LYG 5,582 and 6,691, respectively, under current reimbursement and to ICER of EUR/LYG 8,676 and 7,057 under full reimbursement. **CONCLUSIONS:** Confronting the national GDP per capita with the WHO recommendation on health care spending per QALY gained, PCV13 national immunization program in the Czech Republic can be considered cost-effective even under a full reimbursement policy.

PIH24

COST IMPACT OF A COMPREHENSIVE STI SCREENING STRATEGY, INCLUDING CHLAMYDIA, GONORRHEA AND TRICHOMONIASIS: A US PAYER PERSPECTIVE

Hertz D[1], Mehringer M[2], Sulham K[1], Garfield S[1]
[1]*GfK Bridgehead, Wayland, MA, USA,* [2]*Hologic Gen-Probe, San Diego, CA, USA*

OBJECTIVES: Chlamydia (CT), gonorrhea (GC) and trichomoniasis (TV) screening can be conducted simultaneously on a single sample using nucleic acid amplification testing (NAAT). NAAT has made screening faster and more sensitive. Targeted CT/GC screening has long been supported by clinical guidelines (USPSTF, CDC, and ACOG) and research has shown screening to be cost-effective from a health-system perspective. Despite this, testing rates are low (estimated at 38% by the CDC). Here, we explore the clinical and economic impact of increasing adherence to screening guidelines for CT/GC and the introduction of TV screening from a US payer perspective. **METHODS:** A decision-tree cost-impact model was developed to compare current screening rates for CT/GC with a hypothetical increase in CT/GC screening uptake and the addition of TV screening in women 15-24yrs. with high-risk sexual behavior. Model components included testing, treatment, confirmation of eradication, and adverse events for women 15-24. Inputs were based on published literature. The model examines member cost (excluding partner transmission) and clinical impact of an increase in screening uptake over 1 year. **RESULTS:** For a hypothetical member population of 5.0M, with a baseline CT/GC/TV prevalence of 4.7/2.2/8.4%, increasing CT/GC screening uptake by 10% and adding simultaneous TV screening has an incremental cost per additional STI detected over a 5-year, 7-year, and lifetime time horizon of $376.18, $272.26, and $30.01, respectively. The incremental cost per adverse event avoided was $2,239.00, $1,541.86, $182.22, respectively. Lifetime adverse events avoided (discounted) include: 215 cases of PID, 93 PID-related sequelae, 14 adverse pregnancy outcomes and 0.8 HIV cases. **CONCLUSIONS:** Given its high prevalence, high rate of asymptomatic cases and the severity of the health consequences, TV should be considered as part of a comprehensive STI screening strategy. Increasing targeted screening for CT/GC/TV could be a cost-effective way of improving women's health and a health plan's quality of care.

PIH25

COST-EFFECTIVENESS OF VAGINAL PROGESTERONE GEL IN REDUCING PRETERM BIRTH: A DECISION ANALYTIC MODEL BASED ON THE PREGNANT RANDOMIZED CLINICAL TRIAL

Pizzi LT[1], Seligman N[2], Baxter J[3], Jutkowitz E[4], Prioli KM[1], Mearns E[5], Berghella V[3]
[1]*Thomas Jefferson University, Philadelphia, PA, USA,* [2]*University of Rochester Medical Center, School of Medicine and Dentistry, Rochester, NY, USA,* [3]*Jefferson Medical College, Philadelphia, PA, USA,* [4]*University of Minnesota, Minneapolis, MN, USA,* [5]*Jefferson School of Pharmacy, Philadelphia, PA, USA*

OBJECTIVES: Preterm birth (PTB) is a costly public health problem that causes significant neonatal morbidity and mortality. To determine cost-effectiveness of vaginal progesterone (VP) gel in the prevention of preterm birth (PTB), we developed a decision analytic model using data from the PREGNANT trial. **METHODS:** PREGNANT was a multi-center, international RCT in which 459 women with singleton gestations and short cervix (10-20mm by transvaginal ultrasound) were randomized to daily VP 8% gel (n=235) or placebo (n=224). Patient-level trial data along with cost data from the literature were used to develop the model (TreeAge Pro 2011). Births were categorized by gestational age at delivery: PTB at <28 weeks, PTB at 28-31 weeks, PTB at 32-36 weeks, or full term (≥37 weeks). Costs ($US 2011) included cervical length screening, VP gel (treatment group only), antenatal hospitalizations, cerclage, and delivery hospitalization (maternal + neonatal costs). The main outcome measure was incremental cost-effectiveness, calculated as the difference in total costs between the VP gel group and the placebo group, divided by the difference in the number of PTB averted between the VP gel group and the placebo group. A probabilistic sensitivity analysis (PSA) with 10,000 simulations was used to determine cost-effectiveness when both cost and outcome data were varied within defined limits. **RESULTS:** Model base case incremental savings for VP were $12,354 and an incremental benefit of VP was 0.042 PTB averted (ICER=$21,063/PTB averted). The PSA indicated that VP gel is expected to be less costly and more effective than placebo in 79.2% of simulated cases, however, less costly but ineffective in 16.8% of simulated cases. **CONCLUSIONS:** VP gel is cost-effective in the prevention of PTB in women with short cervix as compared to placebo in most cases. Results inform ongoing clinical controversies regarding the value of VP as a preventive modality for PTB.

PIH26

HEALTH ECONOMIC EVIDENCE IN SUPPORT OF A LONG-ACTING REVERSIBLE CONTRACEPTIVE METHOD: LNG-IUS-12, A LOW-DOSE CONTRACEPTIVE LEVONORGESTREL INTRAUTERINE SYSTEM

Trussell J[1], Hassan F[2], Henry N[2], Law AW[3], Pocoski J[3], Filonenko A[4]
[1]*Princeton University, Princeton, NJ, USA,* [2]*IMS Health, London, UK,* [3]*Bayer HealthCare Pharmaceuticals Inc, Wayne, NJ, USA,* [4]*Bayer Pharma AG, Berlin, Germany*

OBJECTIVES: LNG-IUS-12 is a low-dose hormonal intrauterine contraceptive system for up to 3 years of use. This analysis aimed to evaluate the cost-effectiveness of LNG-IUS-12 in comparison to short-acting reversible contraceptive (SARC) methods in a cohort of young women in the United States (US) from a third-party payer's perspective. **METHODS:** A state-transition model was developed to assess cost-effectiveness of LNG-IUS-12 versus SARC methods over 3 years in 1000 women aged 20-29 years, the age group accounting for over half of all abortions in the US. SARC methods comprise of oral contraceptives, ring, patch and injections – methods commonly used by this cohort. The model consisted of three mutually exclusive health states: initial method, unplanned pregnancy (UP) and subsequent method. Subsequent method is represented by a mixed market-weighted contraceptive 'basket'. Failure and discontinuation rates were based on published literature. Unit costs were taken from standard US databases. Cost and effectiveness metrics for SARC were weighted using market share data. The key model output was cost per UP avoided. One-way sensitivity analyses (OWSA) and probabilistic sensitivity analyses (PSA) were performed. **RESULTS:** LNG-IUS-12 dominated SARC, resulting in fewer UP (65.26 vs. 278.97) and lower total costs ($1,274,295USD vs. $1,822,836USD, a 43% saving) over 3 years. The costs associated with subsequent method used by women who initiated LNG-IUS-12 were lower ($107,587USD vs. $230,024USD) due to lower failure and discontinuation rates of LNG-IUS-12. OWSA results were insensitive to variation in key input parameters. PSA results indicate a high probability of dominance as all iterations were less costly and more effective. **CONCLUSIONS:** From a third-party payer perspective, LNG-IUS-12 is a more cost-effective contraceptive option than SARC. Therefore, women switching from current SARC use to LNG-IUS-12 are likely to generate cost savings to third-party health care payers, driven principally by decreased UP-related expenditures and long-term savings in contraceptive costs.

PIH27

COST EFFECTIVENESS ANALYSIS OF MEDICAL MANAGEMENT OF INCOMPLETE MISCARRIAGES IN THE BAHAMAS

Sakharkar P[1], Sakharkar V[2]
[1]*Roosevelt University College of Pharmacy, Schaumburg, IL, USA,* [2]*University of the West Indies, School of Clinical Medicine & Research, Nassau, Bahamas*

OBJECTIVES: About 30% of all pregnancies end in first trimester and half of them present as an incomplete miscarriage. It is a significant health issue raising economic burden on the publicly funded health care system in the Bahamas. Surgical evacuation is the most commonly used treatment which involves operating theater and inpatient costs in cases of complications like cervical trauma, uterine perforation, hemorrhage and infection. The objective of this study was to conduct a cost effectiveness analysis (CEA) of medical management (Misoprostol) versus surgical procedure in the management of incomplete miscarriages in the Bahamas, from a societal perspective. **METHODS:** Cost and probabilities of outcomes were derived from the hospital data and published literature. Cost of medical and surgical management included direct & indirect costs viz. physician cost, procedure cost, cost of ultrasounds, drug cost, cost of hospital stay, complications & adverse events; loss of wages and cost of travel. Primary outcomes were treatment success and failure. A one way sensitivity analyses were conducted by varying the cost and success by 25% & 15%, respectively. **RESULTS:** The CEA showed that, medical management (US$719 per patient) was the least costly alternative to surgical procedure (US$2,135 per patient). The incremental cost effectiveness ratio (ICER) of medical management was - $1,416 and proved to be the dominant option being less expensive and having comparable treatment success. Results were sensitive to variations in costs by 25% and success rate by 15% indicating domination of medical management suggesting being less expensive both to the patient as well as to the payer. **CONCLUSIONS:** From a societal perspective, medical management appears to be the least costly approach for the treatment of incomplete miscarriages in the Bahamas; and should be considered as the first line management. Further investigations are needed to obtain costs savings on long term horizon.

PIH28

COST-EFFECTIVENESS ANALYSIS OF USING LEVONORGESTREL-RELEASING INTRAUTERINE SYSTEM IN LONG-TERM CONTRACEPTION IN COLOMBIA

Romero M[1], Huerfano L[1], Espinel F[2]
[1]*Fundacion Salutia, Bogota, Colombia,* [2]*Clinica de la Mujer, Bogota, Colombia*

OBJECTIVES: To evaluate the cost-effectiveness of levonorgestrel-releasing intrauterine system (LNG-IUS) as a long-term contraceptive method compared with similar methods, from the state perspective **METHODS:** A Markov chain model is developed to evaluate pregnancies avoided as outcome of interest. The model was built in monthly cycles at a five-year time horizon for a hypothetical cohort of 1,000 women of childbearing age and includes probabilities of